

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
BALL RANCH AC15-03, WELD COUNTY, COLORADO
FREMONT PROJECT C022-124

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4- Trimethyl- Benzene (mg/kg)	1,3,5- Trimethyl- Benzene (mg/kg)	Naphthalene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500		
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500		
AST01@1.5'	09/21/2022	1.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
AST02@1'	09/21/2022	1'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
AST03@1.5'	09/21/2022	1.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
AST04@1'	09/21/2022	1'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
AST05@1'	09/21/2022	1'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWVB01@8'	09/21/2022	8'	<0.0020	<0.0050	<0.0050	<0.010	0.012	<0.0050	0.0082	<0.50	<50	<50
PWVE01@6'	09/21/2022	6'	<0.0020	0.0078	0.0061	0.028	0.0075	<0.0050	<0.0038	<0.50	<50	<50
SEP01@3'	09/21/2022	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SEP02@3'	09/21/2022	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SS-CEN 8FT	05/19/2023	8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	0.006	<0.0038	<0.50	<50	<50
SS-E 9FT	05/19/2023	9	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SS-N 9FT	05/19/2023	9	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SS-W 9FT	05/19/2023	9	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50

Bold faced values exceed the COGCC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

* Summation of GRO+DRO+ORO must be less than 500 mg/kg

TABLE 2
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
BALL RANCH AC15-03, WELD COUNTY, COLORADO
FREMONT PROJECT C022-124

Sample ID	Sample Date	Depth (ft)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3- cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
AST01@1.5'	09/21/2022	1.5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST02@1'	09/21/2022	1'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST03@1.5'	09/21/2022	1.5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST04@1'	09/21/2022	1'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST05@1'	09/21/2022	1'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWVB01@8'	09/21/2022	8'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0168	<0.00500
PWVE01@6'	09/21/2022	6'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01@3'	09/21/2022	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP02@3'	09/21/2022	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS-CEN 8FT	05/19/2023	8	<0.00500	<0.00500	0.0219	<0.00500	<0.00500	<0.00500	0.0222	<0.00500	<0.00500	<0.00500	<0.00500	0.04	0.24	<0.00500
SS-E 9FT	05/19/2023	9	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS-N 9FT	05/19/2023	9	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS-W 9FT	05/19/2023	9	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Bold faced values exceed the COGCC Table 915-1 concentrations
Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

TABLE 3
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY INC.
BALL RANCH AC15-03, WELD COUNTY, COLORADO
FREMONT PROJECT C022-124

Sample ID	Sample Date	Depth (ft)	EC (mmhos/cm)	pH	SAR	Boron (mg/L)
COGCC Table 915-1 Limits (Residential SSL)			<4	6 - 8.3	<6	2
AST01@1.5'	09/21/2022	1.5'	2.39	6.66	0.478	0.0615
AST02@1'	09/21/2022	1'	3.06	6.78	0.452	0.0782
AST03@1.5'	09/21/2022	1.5'	0.995	6.72	0.378	0.0379
AST04@1'	09/21/2022	1'	1.74	6.30	0.359	0.0987
AST05@1'	09/21/2022	1'	4.07	7.33	0.499	0.14
PWVB01@8'	09/21/2022	8'	0.834	7.97	1.5	0.198
PWVE01@6'	09/21/2022	6'	0.308	7.94	2.19	0.308
SEP01@3'	09/21/2022	3'	0.297	7.92	0.823	0.173
SEP02@3'	09/21/2022	3'	0.992	7.72	1.13	0.205
SS-CEN 8FT	05/19/2023	8	0.593	7.3	1.33	0.654
SS-E 9FT	05/19/2023	9	0.361	6.91	0.738	1.06
SS-N 9FT	05/19/2023	9	0.728	6.92	3.53	1.25
SS-W 9FT	05/19/2023	9	1.06	6.96	3.36	0.697
BKG 1 8FT	05/19/2023	8	0.26	7.14	0.473	0.73
BKG 2 9FT	05/19/2023	9	0.219	6.93	0.812	1.19
BKG 3 9FT	05/19/2023	9	2.46	6.78	1.92	0.691
BKG 4 8FT	05/19/2023	8	2.05	7.22	2.26	1.41
BKG 5 9FT	05/19/2023	9	3.3	7.41	2.24	0.837

Bold faced values exceed the COGCC Table 915-1 concentrations

Yellow highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

TABLE 1
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
BALL RANCH AC15-03, WELD COUNTY, COLORADO
FREMONT PROJECT C022-124

Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)	Chromium (VI) (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			0.68	15000	71	3100	400	1500	390	390	23000	0.3
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	46	14	26	0.26	0.8	370	0.00067
125% Max. Background Concentration			3.6	-	-	5.8	17	-	1.5	-	-	-
SS-CEN 8FT	05/19/2023	8	0.804	70.3	<0.242	2.14	4.81	1.7	<0.314	<0.0242	8.11	<0.30
SS-E 9FT	05/19/2023	9	2.52	9.29	<0.245	4.65	2.93	1.07	0.436	0.0383	7.29	<0.30
SS-N 9FT	05/19/2023	9	0.875	6.39	<0.249	4.01	2.3	3.89	<0.324	<0.0249	16.2	<0.30
SS-W 9FT	05/19/2023	9	1.72	62.8	<0.248	4.51	239	1	1.64	0.055	6.7	<0.30
BKG 1 8FT	05/19/2023	8	1.09	111	<0.246	3.63	8.38	3.98	0.333	0.0399	25	<0.30
BKG 2 9FT	05/19/2023	9	1	33.8	<0.257	4.36	13.9	0.796	0.496	0.0458	6.85	<0.30
BKG 3 9FT	05/19/2023	9	0.596	18.2	<0.246	4.64	3.34	0.815	<0.320	0.0477	5.24	<0.30
BKG 4 8FT	05/19/2023	9	2.9	24.3	<0.253	2.74	6.44	1.6	1.18	0.038	14.9	<0.30
BKG 5 9FT	05/19/2023	9	2.25	11.1	<0.245	4.11	6.46	1.31	0.514	0.0455	9.93	<0.30

Bold faced values exceed the COGCC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

NA - Not analyzed

Ball Ranch AC 15-03 Tank Battery

Site Investigation
Rem. #23764

Legend

● Soil Sample Locations

Proposed
Excavation Extent:
20'x20'x9' deep



Ball Ranch AC 15-03 Tank Battery

Site Investigation
Rem. #23764

Legend

Soil Sample Locations

BKG 4

BKG 5

SS N

SS E

SS CEN

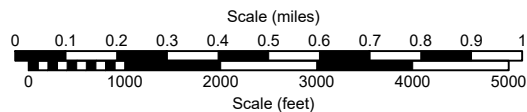
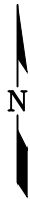
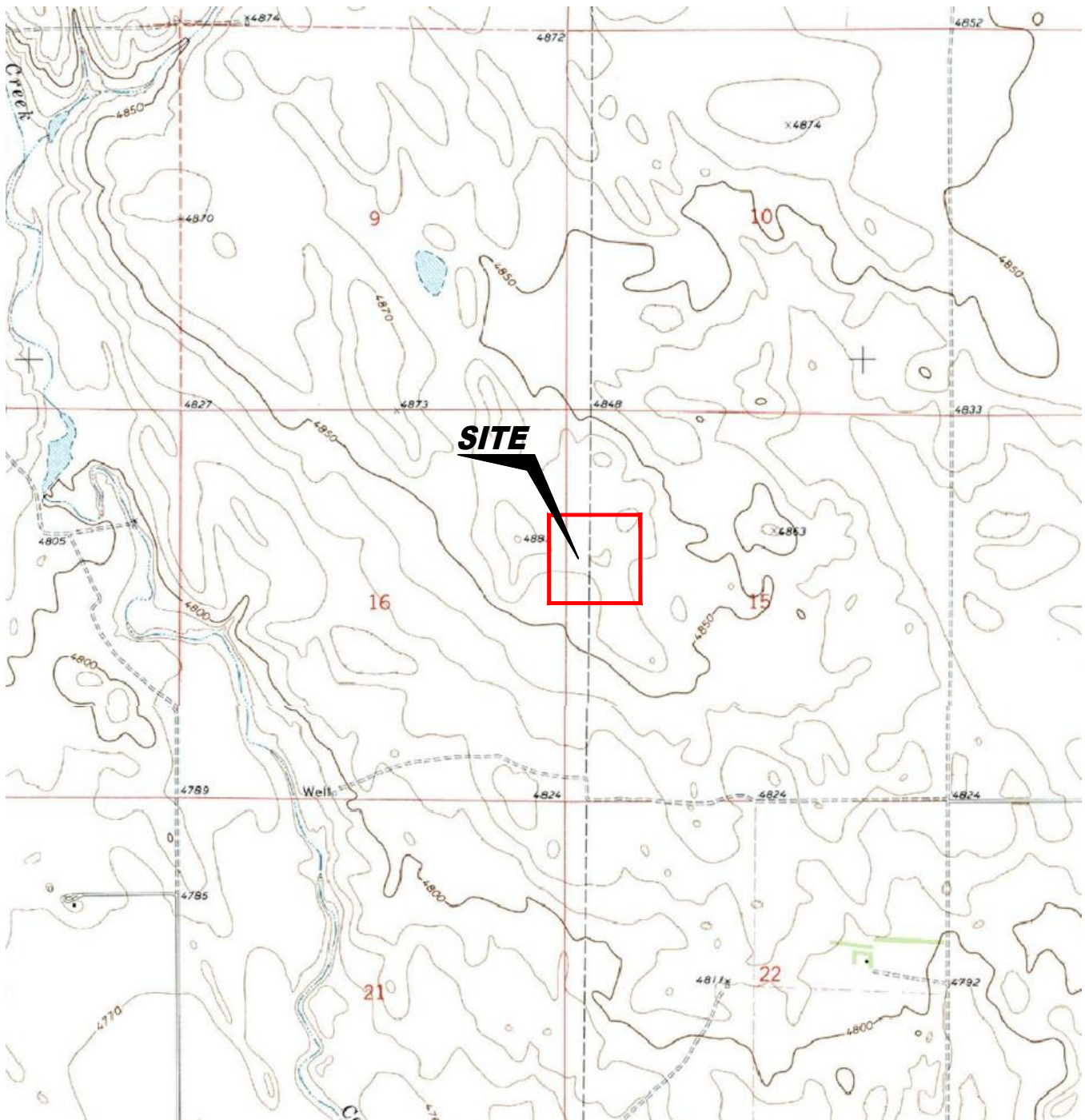
SS S

BKG 3

BKG 1

BKG 2





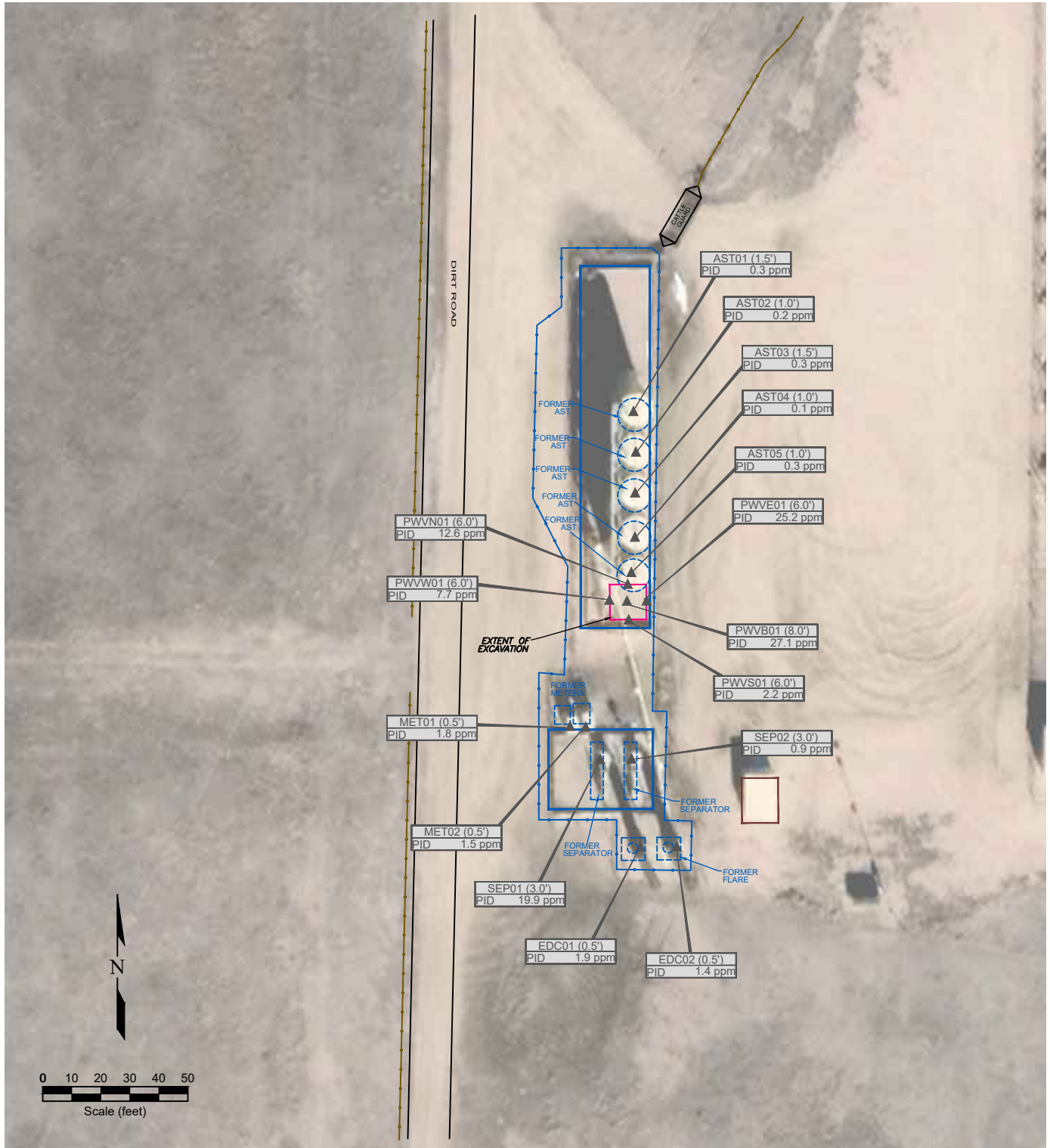
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

Noble Energy, Inc. ~ Ball Ranch AC 15-65HN
SWNW Sec. 15, T7N, R63W, 6th PM
Weld County, Colorado
40.575290°, -104.429520°

Project # C022-124	API # 05-123-35074	Drawn By TA
Date 11/29/22	Remediation # 23766	Filename 22124T






LEGEND

▲ PID READING LOCATION	○ ABOVE GROUND STORAGE TANK	FORMER FACILITY	BUILDING	BUILDING	CONTAINMENT WALL	EXTENT OF EXCAVATION	FENCE LINE
MET01 (0.5') PID 1.8 ppm							
PID READING LOCATION IDENTIFICATION PHOTO IONIZATION DETECTION (ppm)							

Figure 2
SITE MAP

Noble Energy, Inc. ~ Ball Ranch AC 15-03
NWNW Sec. 15, T7N, R63W, 6th PM
Weld County, Colorado
40.577687°, -104.430380°

Project No. C022-124	Facility # 427188	Drawn By TA	
Date 12/22/22	Remediation # 23764	Filename 22124Q	

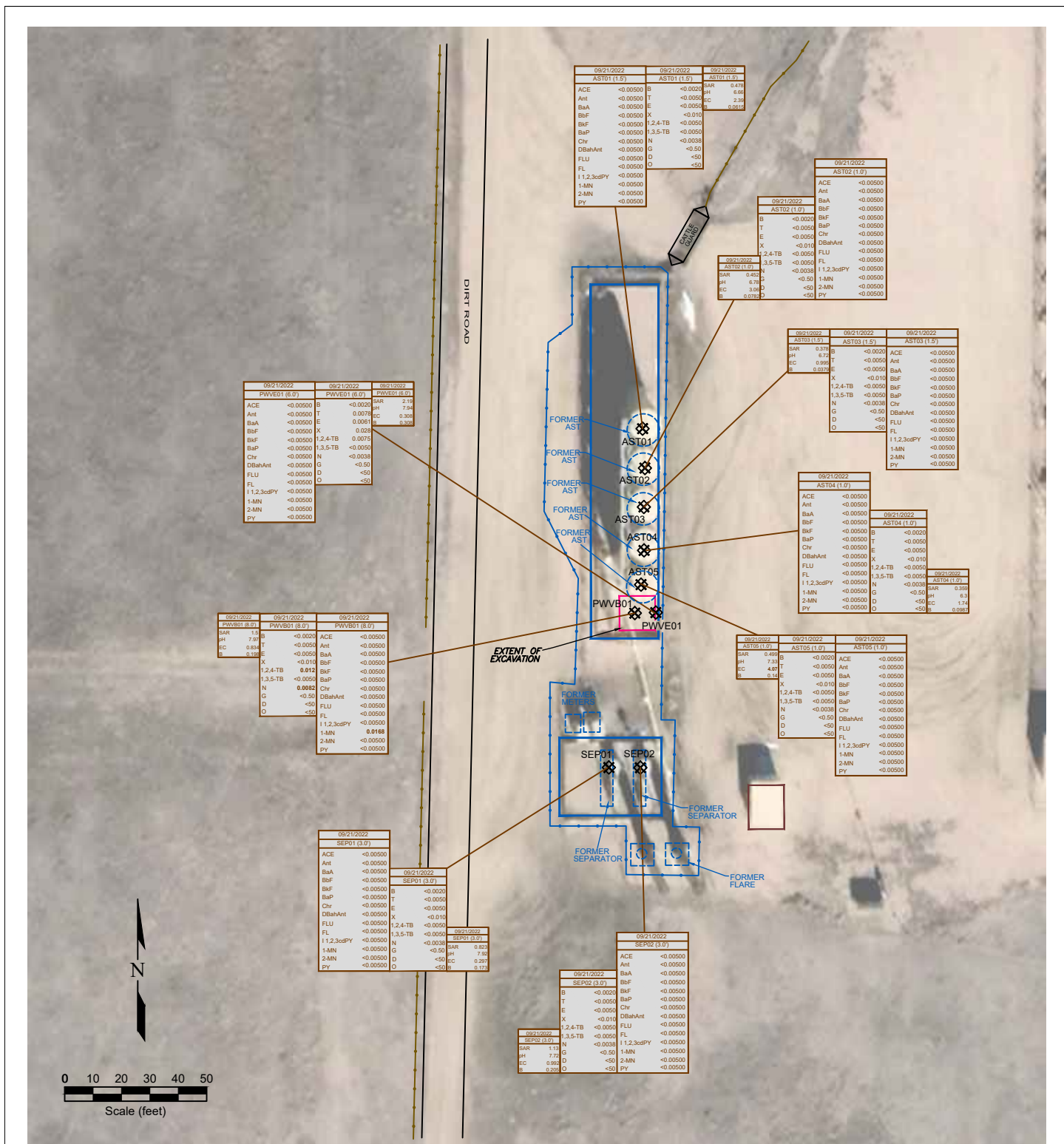


Figure 3
SOIL CHEMISTRY MAP

Noble Energy, Inc. ~ Ball Ranch AC 15-03
NWNW Sec. 15, T7N, R63W, 6th PM
Weld County, Colorado
40.577687°, -104.430380°

LEGEND	
SOIL SAMPLE LOCATION	ABOVE GROUND STORAGE TANK
FORMER FACILITY	BUILDING
BUILDING	CONTAINMENT WALL
EXTENT OF EXCAVATION	FENCE LINE

09/21/2022	DATE SAMPLED
AST01 (1.5')	SAMPLE ID and DEPTH (ft)
ACE	<0.00500
Ant	<0.00500
BaA	<0.00500
BbF	<0.00500
BkF	<0.00500
Chr	<0.00500
DBaHant	<0.00500
FLU	<0.00500
1,1,2,3,4-Py	<0.00500
1-MN	<0.00500
2-MN	<0.00500
PY	<0.00500

09/21/2022	DATE SAMPLED
AST01 (1.5')	SAMPLE ID and DEPTH (ft)
B	<0.00500
T	<0.00500
E	<0.00500
X	<0.00500
1,2,4-TB	<0.00500
1,3,5-TB	<0.00500
N	<0.00500
G	<0.00500
D	<0.00500
O	<0.00500

09/21/2022	DATE SAMPLED
SEP01 (3.0')	SAMPLE ID and DEPTH (ft)
ACE	<0.00500
Ant	<0.00500
BaA	<0.00500
BbF	<0.00500
BkF	<0.00500
Chr	<0.00500
DBaHant	<0.00500
FLU	<0.00500
1,1,2,3,4-Py	<0.00500
1-MN	<0.00500
2-MN	<0.00500
PY	<0.00500

09/21/2022	DATE SAMPLED
SEP02 (3.0')	SAMPLE ID and DEPTH (ft)
ACE	<0.00500
Ant	<0.00500
BaA	<0.00500
BbF	<0.00500
BkF	<0.00500
Chr	<0.00500
DBaHant	<0.00500
FLU	<0.00500
1,1,2,3,4-Py	<0.00500
1-MN	<0.00500
2-MN	<0.00500
PY	<0.00500

Project No. C022-124	Facility # 427188	Drawn By TA	
Date 12/22/22	Remediation # 23764	Filename 22124Q	

5/19/23

Ball Ranch A 15-03

53°F, Overcast, Calm

EB (Fremont), Terrence A (DrillPro)

			SS-GEN
Depth (ft)	Desc.	Rec %	PID (ppm)
2	ROADBASE 6" CLAY: BRN, PLASTIC, MOIST (CH)	50	0.0 0.0 0.0 0.0 ↑ No REC. ↓
4		No REC.	
6			
8	CLAY-MOTTLED, Non-PLASTIC MOIST (CL)	10	11.2 *
10			0.0 0.0 0.0
12	OL END OF BORING 12.0'	100	0.0
			SS-N
2	CLAY: BRN, PLASTIC, MOIST (CH)	95	0.0 0.0 0.0
4			0.0 0.0
6		98	0.0 0.0 0.0
8	CLAY: MOTTLED, Non-PLASTIC, MOIST, (CL) END OF BORING OXIDIZED	100	0.0 *
9	9.0'		
			SS-E
2	No RECOVERY	0	NS NS NS
4	CLAY: BRN, PLASTIC, MOIST (CH)		0.0 0.0
6		60	0.0 0.0
8	CLAY: MOTTLED, Non-PLASTIC, SLIGHTLY (CL) END OF BORING MOIST, OXIDIZED	95	0.0 *
9	9.0'		

5/19/23

Ball Ranch A 15-03

SI Borings

SS-S

Depth (ft)	Desc.	Rec%	PI (ppm)
			NS
			NS
2		10	0.0
4	CLAY - BRN PLASTIC, MOIST (CH)	50	NS
6			0.0
			0.0
8			0.0
9	CLAY: MOTTLED, NON-PLASTIC, SLTLY MOIST (CL) END OF BORING 9.0'	100	0.0*

SS-W

2	NO RECOVERY		NS
			NS
4		0	NS
4	CLAY: BRN, PLASTIC, MOIST (CH)		0.0
6		90	0.0
			0.0
8			0.0
9	CLAY: MOTTLED, NON-PLASTIC, SLTLY (CL) MOIST	100	0.0*
	→ END OF BORING 9.0'		

• Collected 5 BKG samples see Trimble for details

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

June 05, 2023

Paul Henehan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Ball Ranch AC 15-04

Work Order # 2305506

Enclosed are the results of analyses for samples received by Summit Scientific on 05/22/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacob Wood For Paul Shrewsbury

President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-CEN 8FT	2305506-01	Soil	05/19/23 00:00	05/22/23 16:30
SS-N 9FT	2305506-02	Soil	05/19/23 00:00	05/22/23 16:30
SS-E 9FT	2305506-04	Soil	05/19/23 00:00	05/22/23 16:30
SS-W 9FT	2305506-05	Soil	05/19/23 00:00	05/22/23 16:30
BKG 1 8FT	2305506-06	Soil	05/19/23 00:00	05/22/23 16:30
BKG 2 9FT	2305506-07	Soil	05/19/23 00:00	05/22/23 16:30
BKG 3 9FT	2305506-08	Soil	05/19/23 00:00	05/22/23 16:30
BKG 4 8FT	2305506-09	Soil	05/19/23 00:00	05/22/23 16:30
BKG 5 9FT	2305506-10	Soil	05/19/23 00:00	05/22/23 16:30

SUMMIT SCIENTIFIC

4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2305506	

Client: Fremont Env.	Send Data To: Project Manager: Henehan	Send Invoice To: Company: Noble
Address:	E-Mail: Fremont/Noble Dist. List	Project Name/Location:
City/State/Zip:		AFE#:
Phone:	Project Name: Noble-Ball Ranch AC 15-03	PO/Billing Codes: UWRCU-2002-ABN
Sampler Name: EB	Project Number:	Contact: Dan P.

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX, Naphthalene, TMS	TPH (C6-C36)	PAH	SAR, EC, pH, Boron	TDS, Chloride, Sulfate	Metals (915-1)	
1	SS-CEN 8 FT	5/19/23		2			X			X			X	X	X	X		X	
2	SS-N 4 FT			1									X	X	X	X			
3	SS-S 4 FT			1									X	X	X	X			
4	SS-E 4 FT			1									X	X	X	X			
5	SS-W 4 FT			1									X	X	X	X			
6	BKG 1 8 FT			1									X	X	X	X			
7	BKG 2 4 FT			1									X	X	X	X			
8	BKG 3 4 FT			1									X	X	X	X			
9	BKG 4 8 FT			1									X	X	X	X			
10	BKG 5 4 FT			1									X	X	X	X			
11																			
12																			
13																			
14																			
15																			

Relinquished by: <i>John Hook</i>	Date/Time: 5/22/23 16:30	Received by: S2	Date/Time: 5/22/23 16:30	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: S2	Date/Time: 5/22/23 16:30	Received by: <i>[Signature]</i>	Date/Time: 5/22/23 16:30	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by: <i>[Signature]</i>	Date/Time:	Received by:	Date/Time:	Standard	Field Turb.	
Temperature Upon Receipt: 9.3	Corrected Temperature: 6	IR gun #:		HNO3 lot #		

S₂

Sample Receipt Checklist

S2 Work Order# 2305506Client: FremontClient Project ID: Noble Ball Ranch Ac 1503Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐

Airbill #: _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply)

Air

☐

Soil/Solid

☐

Water

☐

Other

☐

Temp (°C)

9.3

Thermometer #

1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ICE
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	missing sample 3 SS-S 9ft
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.
AS
Custodian Printed Name

5/22/23
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-CEN 8FT
2305506-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.0060	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		92.7 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		88.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		117 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-CEN 8FT
2305506-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	I-01
Anthracene	ND	0.00500		"	"	"	"	"	"	I-01
Benzo (a) anthracene	0.0219	0.00500		"	"	"	"	"	"	I-01
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	I-01
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	I-01
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	I-01
Chrysene	0.0222	0.00500		"	"	"	"	"	"	I-01
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	I-01
Fluoranthene	ND	0.00500		"	"	"	"	"	"	I-01
Fluorene	ND	0.00500		"	"	"	"	"	"	I-01
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	I-01
Pyrene	0.0400	0.00500		"	"	"	"	"	"	I-01
1-Methylnaphthalene	0.240	0.00500		"	"	"	"	"	"	E, I-01
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	I-01

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		239 %		40-150		"	"	"	"	I-01, S-04, S-GC
Surrogate: Fluoranthene-d10		62.0 %		40-150		"	"	"	"	I-01

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.654	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-CEN 8FT
2305506-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	0.804	0.242		mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B	
Barium	70.3	0.484		"	"	"	"	"	"	
Cadmium	ND	0.242		"	"	"	"	"	"	
Copper	2.14	0.484		"	"	"	"	"	"	
Lead	4.81	0.242		"	"	"	"	"	"	
Nickel	1.70	0.484		"	"	"	"	"	"	
Selenium	ND	0.314	0.212	"	"	"	"	"	"	
Silver	ND	0.0242		"	"	"	"	"	"	
Zinc	8.11	0.484		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	37.7	0.0605		mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	15.6	0.0605		"	"	"	"	"	"	
Sodium	38.6	0.0605		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	1.33	0.00100		units	1	BGF0092	06/02/23	06/02/23	Calculation	

Summit Scientific

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Fremont Environmental
PO Box 1289
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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-CEN 8FT
2305506-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	82.7			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.593	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.30			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-N 9FT
2305506-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		93.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		89.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		113 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-N 9FT
2305506-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		41.5 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		40.3 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	1.25	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-N 9FT
2305506-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.875	0.249	mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B
Barium	6.39	0.498	"	"	"	"	"	"
Cadmium	ND	0.249	"	"	"	"	"	"
Copper	4.01	0.498	"	"	"	"	"	"
Lead	2.30	0.249	"	"	"	"	"	"
Nickel	3.89	0.498	"	"	"	"	"	"
Selenium	ND	0.324	0.218	"	"	"	"	"
Silver	ND	0.0249	"	"	"	"	"	"
Zinc	16.2	0.498	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.0	0.0623		mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	16.0	0.0623		"	"	"	"	"	"	
Sodium	95.5	0.0623		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.53	0.00100		units	1	BGF0092	06/02/23	06/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-N 9FT
2305506-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	80.3			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.728	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.92			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-E 9FT
2305506-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		92.3 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		89.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		115 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-E 9FT
2305506-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		57.8 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		63.8 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	1.06	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-E 9FT
2305506-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.52	0.245		mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B
Barium	9.29	0.491		"	"	"	"	"	"
Cadmium	ND	0.245		"	"	"	"	"	"
Copper	4.65	0.491		"	"	"	"	"	"
Lead	2.93	0.245		"	"	"	"	"	"
Nickel	1.07	0.491		"	"	"	"	"	"
Selenium	0.436	0.319	0.215	"	"	"	"	"	"
Silver	0.0383	0.0245		"	"	"	"	"	"
Zinc	7.29	0.491		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Chromium, Hexavalent	ND	0.30			mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Calcium	55.4	0.0613			mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	26.1	0.0613			"	"	"	"	"	"	
Sodium	26.6	0.0613			"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Sodium Adsorption Ratio	0.738	0.00100			units	1	BGF0092	06/02/23	06/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-E 9FT
2305506-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	81.5			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.361	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.91			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-W 9FT
2305506-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		91.8 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		88.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.2 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		113 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-W 9FT
2305506-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		59.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.3 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.697	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-W 9FT
2305506-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.72	0.248		mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B
Barium	62.8	0.495		"	"	"	"	"	"
Cadmium	ND	0.248		"	"	"	"	"	"
Copper	4.51	0.495		"	"	"	"	"	"
Lead	239	0.248		"	"	"	"	"	"
Nickel	1.00	0.495		"	"	"	"	"	"
Selenium	1.64	0.322	0.217	"	"	"	"	"	"
Silver	0.0550	0.0248		"	"	"	"	"	"
Zinc	6.70	0.495		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Chromium, Hexavalent	ND	0.30			mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Calcium	49.9	0.0619			mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	27.5	0.0619			"	"	"	"	"	"	
Sodium	119	0.0619			"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Sodium Adsorption Ratio	3.36	0.00100			units	1	BGF0092	06/02/23	06/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

SS-W 9FT
2305506-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	80.8			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.06	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.96			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 1 8FT
2305506-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		94.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		91.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		119 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 1 8FT
2305506-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		53.0 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		57.7 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.730	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 1 8FT
2305506-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.09	0.246		mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B
Barium	111	0.492		"	"	"	"	"	"
Cadmium	ND	0.246		"	"	"	"	"	"
Copper	3.63	0.492		"	"	"	"	"	"
Lead	8.38	0.246		"	"	"	"	"	"
Nickel	3.98	0.492		"	"	"	"	"	"
Selenium	0.333	0.320	0.215	"	"	"	"	"	"
Silver	0.0399	0.0246		"	"	"	"	"	"
Zinc	25.0	0.492		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL								
Chromium, Hexavalent	ND	0.30			mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL								
Calcium	52.3	0.0615			mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	24.2	0.0615			"	"	"	"	"	"	
Sodium	16.5	0.0615			"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL								
Sodium Adsorption Ratio	0.473	0.00100			units	1	BGF0092	06/02/23	06/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 1 8FT
2305506-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	81.3			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.260	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.14			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 2 9FT
2305506-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		96.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		121 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 2 9FT
2305506-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		50.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		46.7 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	1.19	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 2 9FT
2305506-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.00	0.257		mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B
Barium	33.8	0.515		"	"	"	"	"	"
Cadmium	ND	0.257		"	"	"	"	"	"
Copper	4.36	0.515		"	"	"	"	"	"
Lead	13.9	0.257		"	"	"	"	"	"
Nickel	0.796	0.515		"	"	"	"	"	"
Selenium	0.496	0.334	0.225	"	"	"	"	"	"
Silver	0.0458	0.0257		"	"	"	"	"	"
Zinc	6.85	0.515		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Chromium, Hexavalent	ND	0.30			mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Calcium	12.2	0.0643			mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	7.06	0.0643			"	"	"	"	"	"	
Sodium	14.4	0.0643			"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Sodium Adsorption Ratio	0.812	0.00100			units	1	BGF0092	06/02/23	06/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 2 9FT
2305506-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	77.7			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.219	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.93			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	

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PO Box 1289
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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 3 9FT
2305506-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		96.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		90.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		117 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 3 9FT
2305506-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		58.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.9 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.691	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 3 9FT
2305506-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.596	0.246	mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B
Barium	18.2	0.492	"	"	"	"	"	"
Cadmium	ND	0.246	"	"	"	"	"	"
Copper	4.64	0.492	"	"	"	"	"	"
Lead	3.34	0.246	"	"	"	"	"	"
Nickel	0.815	0.492	"	"	"	"	"	"
Selenium	ND	0.320	0.215	"	"	"	"	"
Silver	0.0477	0.0246	"	"	"	"	"	"
Zinc	5.24	0.492	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	236	0.0615		mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	108	0.0615		"	"	"	"	"	"	
Sodium	142	0.0615		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.92	0.00100		units	1	BGF0092	06/02/23	06/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 3 9FT
2305506-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	81.3			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	2.46	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.78			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	

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PO Box 1289
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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 4 8FT
2305506-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		94.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		89.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		111 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 4 8FT
2305506-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		52.5 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		55.8 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	1.41	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 4 8FT
2305506-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.90	0.253		mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B
Barium	24.3	0.506		"	"	"	"	"	"
Cadmium	ND	0.253		"	"	"	"	"	"
Copper	2.74	0.506		"	"	"	"	"	"
Lead	6.44	0.253		"	"	"	"	"	"
Nickel	1.60	0.506		"	"	"	"	"	"
Selenium	1.18	0.329	0.222	"	"	"	"	"	"
Silver	0.0380	0.0253		"	"	"	"	"	"
Zinc	14.9	0.506		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	175	0.0633		mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	96.6	0.0633		"	"	"	"	"	"	
Sodium	150	0.0633		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.26	0.00100		units	1	BGF0092	06/02/23	06/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 4 8FT
2305506-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	79.0			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	2.05	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.22			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	

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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 5 9FT
2305506-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0859	05/24/23	05/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		93.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		88.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0857	05/24/23	05/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		121 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 5 9FT
2305506-10 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0898	05/25/23	05/25/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		53.3 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.5 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.837	0.0100		mg/L	1	BGE0895	05/25/23	05/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
PO Box 1289
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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 5 9FT
2305506-10 (Soil)

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Total Metals by EPA 6020B

Arsenic	2.25	0.245		mg/kg dry	1	BGE1015	05/30/23	06/01/23	EPA 6020B
Barium	11.1	0.489		"	"	"	"	"	"
Cadmium	ND	0.245		"	"	"	"	"	"
Copper	4.11	0.489		"	"	"	"	"	"
Lead	6.46	0.245		"	"	"	"	"	"
Nickel	1.31	0.489		"	"	"	"	"	"
Selenium	0.514	0.318	0.214	"	"	"	"	"	"
Silver	0.0455	0.0245		"	"	"	"	"	"
Zinc	9.93	0.489		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Chromium, Hexavalent	ND	0.30			mg/kg dry	1	BGE0800	05/23/23	05/23/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Calcium	398	0.0611			mg/L dry	1	BGE0981	05/26/23	05/31/23	EPA 6020B	
Magnesium	149	0.0611			"	"	"	"	"	"	
Sodium	206	0.0611			"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Sodium Adsorption Ratio	2.24	0.00100			units	1	BGF0092	06/02/23	06/02/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

BKG 5 9FT
2305506-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	81.8			%	1	BGE0896	05/25/23	05/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	3.30	0.0100		mmhos/cm	1	BGE0996	05/27/23	05/30/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **05/19/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.41			pH Units	1	BGE0995	05/27/23	05/30/23	EPA 9045D	

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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0859 - EPA 5030 Soil MS

Blank (BGE0859-BLK1)

Prepared: 05/24/23 Analyzed: 05/25/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0341</i>		<i>"</i>	<i>0.0400</i>		<i>85.2</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0368</i>		<i>"</i>	<i>0.0400</i>		<i>92.1</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0379</i>		<i>"</i>	<i>0.0400</i>		<i>94.7</i>	<i>50-150</i>			

LCS (BGE0859-BS1)

Prepared: 05/24/23 Analyzed: 05/25/23

Benzene	0.0925	0.0020	mg/kg	0.100		92.5	70-130			
Toluene	0.0782	0.0050	"	0.100		78.2	70-130			
Ethylbenzene	0.0774	0.0050	"	0.100		77.4	70-130			
m,p-Xylene	0.149	0.010	"	0.200		74.7	70-130			
o-Xylene	0.0704	0.0050	"	0.100		70.4	70-130			
1,2,4-Trimethylbenzene	0.0758	0.0050	"	0.100		75.8	70-130			
1,3,5-Trimethylbenzene	0.0750	0.0050	"	0.100		75.0	70-130			
Naphthalene	0.0705	0.0038	"	0.100		70.5	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0309</i>		<i>"</i>	<i>0.0400</i>		<i>77.2</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0382</i>		<i>"</i>	<i>0.0400</i>		<i>95.4</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0379</i>		<i>"</i>	<i>0.0400</i>		<i>94.7</i>	<i>50-150</i>			

Matrix Spike (BGE0859-MS1)

Source: 2305506-01

Prepared: 05/24/23 Analyzed: 05/25/23

Benzene	0.0979	0.0020	mg/kg	0.100	ND	97.9	70-130			
Toluene	0.0865	0.0050	"	0.100	ND	86.5	70-130			
Ethylbenzene	0.0842	0.0050	"	0.100	ND	84.2	70-130			
m,p-Xylene	0.166	0.010	"	0.200	ND	82.8	70-130			
o-Xylene	0.0785	0.0050	"	0.100	ND	78.5	70-130			
1,2,4-Trimethylbenzene	0.0746	0.0050	"	0.100	ND	74.6	70-130			
1,3,5-Trimethylbenzene	0.0859	0.0050	"	0.100	0.00600	79.9	70-130			
Naphthalene	0.0890	0.0038	"	0.100	ND	89.0	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0354</i>		<i>"</i>	<i>0.0400</i>		<i>88.4</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0389</i>		<i>"</i>	<i>0.0400</i>		<i>97.4</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0372</i>		<i>"</i>	<i>0.0400</i>		<i>93.1</i>	<i>50-150</i>			

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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0859 - EPA 5030 Soil MS

Matrix Spike Dup (BGE0859-MSD1)	Source: 2305506-01			Prepared: 05/24/23 Analyzed: 05/25/23						
Benzene	0.0972	0.0020	mg/kg	0.100	ND	97.2	70-130	0.677	30	
Toluene	0.0821	0.0050	"	0.100	ND	82.1	70-130	5.16	30	
Ethylbenzene	0.0838	0.0050	"	0.100	ND	83.8	70-130	0.429	30	
m,p-Xylene	0.164	0.010	"	0.200	ND	82.2	70-130	0.782	30	
o-Xylene	0.0788	0.0050	"	0.100	ND	78.8	70-130	0.343	30	
1,2,4-Trimethylbenzene	0.0756	0.0050	"	0.100	ND	75.6	70-130	1.32	30	
1,3,5-Trimethylbenzene	0.0839	0.0050	"	0.100	0.00600	77.9	70-130	2.40	30	
Naphthalene	0.0827	0.0038	"	0.100	ND	82.7	70-130	7.33	30	
Surrogate: 1,2-Dichloroethane-d4	0.0342		"	0.0400		85.5	50-150			
Surrogate: Toluene-d8	0.0370		"	0.0400		92.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.0	50-150			



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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0857 - EPA 3550A

Blank (BGE0857-BLK1)

Prepared & Analyzed: 05/24/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	15.2		"	12.5	121		30-150			

LCS (BGE0857-BS1)

Prepared & Analyzed: 05/24/23

C10-C28 (DRO)	586	50	mg/kg	500	117		70-130			
Surrogate: o-Terphenyl	15.1		"	12.5	121		30-150			

Matrix Spike (BGE0857-MS1)

Source: 2305506-01

Prepared & Analyzed: 05/24/23

C10-C28 (DRO)	417	50	mg/kg	500	35.2	76.4	70-130			
Surrogate: o-Terphenyl	14.7		"	12.5	117		30-150			

Matrix Spike Dup (BGE0857-MSD1)

Source: 2305506-01

Prepared & Analyzed: 05/24/23

C10-C28 (DRO)	447	50	mg/kg	500	35.2	82.4	70-130	6.96	20	
Surrogate: o-Terphenyl	14.1		"	12.5	113		30-150			



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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Reporting				Spike	Source	%REC			RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0898 - EPA 5030 Soil MS

Blank (BGE0898-BLK1)

Prepared & Analyzed: 05/25/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0214		"	0.0333		64.1	40-150			
Surrogate: Fluoranthene-d10	0.0300		"	0.0333		89.9	40-150			

LCS (BGE0898-BS1)

Prepared & Analyzed: 05/25/23

Acenaphthene	0.0274	0.00500	mg/kg	0.0333		82.2	31-137			
Anthracene	0.0313	0.00500	"	0.0333		94.0	30-120			
Benzo (a) anthracene	0.0282	0.00500	"	0.0333		84.7	30-120			
Benzo (a) pyrene	0.0290	0.00500	"	0.0333		86.9	30-120			
Benzo (b) fluoranthene	0.0287	0.00500	"	0.0333		86.2	30-120			
Benzo (k) fluoranthene	0.0271	0.00500	"	0.0333		81.4	30-120			
Chrysene	0.0293	0.00500	"	0.0333		87.8	30-120			
Dibenz (a,h) anthracene	0.0286	0.00500	"	0.0333		85.8	30-120			
Fluoranthene	0.0284	0.00500	"	0.0333		85.1	30-120			
Fluorene	0.0267	0.00500	"	0.0333		80.0	30-120			
Indeno (1,2,3-cd) pyrene	0.0284	0.00500	"	0.0333		85.1	30-120			
Pyrene	0.0287	0.00500	"	0.0333		86.0	35-142			
1-Methylnaphthalene	0.0222	0.00500	"	0.0333		66.6	35-142			
2-Methylnaphthalene	0.0240	0.00500	"	0.0333		72.0	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0231		"	0.0333		69.2	40-150			
Surrogate: Fluoranthene-d10	0.0291		"	0.0333		87.4	40-150			

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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike		Source		%REC		RPD	
	Result	Limit	Units	Level		Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0898 - EPA 5030 Soil MS

Matrix Spike (BGE0898-MS1)			Source: 2305506-01		Prepared & Analyzed: 05/25/23						
Acenaphthene	0.0267	0.00500	mg/kg	0.0333	ND	80.1	31-137				
Anthracene	0.0121	0.00500	"	0.0333	ND	36.4	30-120				
Benzo (a) anthracene	0.0128	0.00500	"	0.0333	0.0219	NR	30-120				QM-07
Benzo (a) pyrene	0.0178	0.00500	"	0.0333	ND	53.5	30-120				
Benzo (b) fluoranthene	0.0197	0.00500	"	0.0333	ND	59.0	30-120				
Benzo (k) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.2	30-120				
Chrysene	0.0245	0.00500	"	0.0333	0.0222	6.94	30-120				QM-07
Dibenz (a,h) anthracene	0.0136	0.00500	"	0.0333	ND	40.9	30-120				
Fluoranthene	0.0155	0.00500	"	0.0333	ND	46.4	30-120				
Fluorene	0.0301	0.00500	"	0.0333	ND	90.2	30-120				
Indeno (1,2,3-cd) pyrene	0.0161	0.00500	"	0.0333	ND	48.4	30-120				
Pyrene	0.0193	0.00500	"	0.0333	0.0400	NR	35-142				QM-07
1-Methylnaphthalene	0.0459	0.00500	"	0.0333	0.240	NR	15-130				QM-07
2-Methylnaphthalene	0.0146	0.00500	"	0.0333	ND	43.9	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0235		"	0.0333		70.4	40-150				
Surrogate: Fluoranthene-d10	0.0157		"	0.0333		47.1	40-150				

Matrix Spike Dup (BGE0898-MSD1)			Source: 2305506-01		Prepared & Analyzed: 05/25/23						
Acenaphthene	0.0283	0.00500	mg/kg	0.0333	ND	84.8	31-137	5.71	30		
Anthracene	0.0169	0.00500	"	0.0333	ND	50.6	30-120	32.6	30		QM-07
Benzo (a) anthracene	0.0188	0.00500	"	0.0333	0.0219	NR	30-120	38.0	30		QM-07
Benzo (a) pyrene	0.0214	0.00500	"	0.0333	ND	64.2	30-120	18.3	30		
Benzo (b) fluoranthene	0.0319	0.00500	"	0.0333	ND	95.6	30-120	47.4	30		QM-07
Benzo (k) fluoranthene	0.0176	0.00500	"	0.0333	ND	52.8	30-120	24.6	30		
Chrysene	0.0648	0.00500	"	0.0333	0.0222	128	30-120	90.2	30		QM-07
Dibenz (a,h) anthracene	0.0129	0.00500	"	0.0333	ND	38.6	30-120	5.87	30		
Fluoranthene	0.0196	0.00500	"	0.0333	ND	58.9	30-120	23.7	30		
Fluorene	0.0417	0.00500	"	0.0333	ND	125	30-120	32.5	30		QM-07
Indeno (1,2,3-cd) pyrene	0.0170	0.00500	"	0.0333	ND	50.9	30-120	4.92	30		
Pyrene	0.0569	0.00500	"	0.0333	0.0400	50.8	35-142	98.6	30		QM-07
1-Methylnaphthalene	0.230	0.00500	"	0.0333	0.240	NR	15-130	133	50		QM-07
2-Methylnaphthalene	0.0158	0.00500	"	0.0333	ND	47.5	15-130	7.86	50		
Surrogate: 2-Methylnaphthalene-d10	0.0781		"	0.0333		234	40-150				QM-07
Surrogate: Fluoranthene-d10	0.0198		"	0.0333		59.5	40-150				

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0895 - EPA 3050B

Blank (BGE0895-BLK1)

Prepared: 05/25/23 Analyzed: 05/30/23

Boron ND 0.0100 mg/L

LCS (BGE0895-BS1)

Prepared: 05/25/23 Analyzed: 05/30/23

Boron 5.06 0.0100 mg/L 5.00 101 80-120

Duplicate (BGE0895-DUP1)

Source: 2305506-01

Prepared: 05/25/23 Analyzed: 05/30/23

Boron 0.685 0.0100 mg/L 0.654 4.64 20

Matrix Spike (BGE0895-MS1)

Source: 2305506-01

Prepared: 05/25/23 Analyzed: 05/30/23

Boron 7.62 0.0100 mg/L 5.00 0.654 139 75-125 QM-05

Matrix Spike Dup (BGE0895-MSD1)

Source: 2305506-01

Prepared: 05/25/23 Analyzed: 05/30/23

Boron 7.61 0.0100 mg/L 5.00 0.654 139 75-125 0.0419 25 QM-05



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGE1015 - EPA 3050B

Blank (BGE1015-BLK1)

Prepared: 05/30/23 Analyzed: 06/01/23

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

LCS (BGE1015-BS1)

Prepared: 05/30/23 Analyzed: 06/01/23

Arsenic	33.2	0.200	mg/kg wet	40.0	82.9	80-120
Barium	40.3	0.400	"	40.0	101	80-120
Cadmium	1.75	0.200	"	2.00	87.4	80-120
Copper	34.5	0.400	"	40.0	86.2	80-120
Lead	22.3	0.200	"	20.0	112	80-120
Nickel	33.9	0.400	"	40.0	84.7	80-120
Selenium	3.40	0.260	"	4.00	85.0	80-120
Silver	1.78	0.0200	"	2.00	88.9	80-120
Zinc	32.6	0.400	"	40.0	81.5	80-120

Duplicate (BGE1015-DUP1)

Source: 2305488-21

Prepared: 05/30/23 Analyzed: 06/01/23

Arsenic	0.527	0.216	mg/kg dry	0.614	15.2	20	
Barium	95.8	0.432	"	140	37.2	20	QR-03
Cadmium	0.0527	0.216	"	0.0623	16.5	20	
Copper	1.41	0.432	"	1.77	22.7	20	QR-03
Lead	3.13	0.216	"	3.17	1.44	20	
Nickel	1.88	0.432	"	1.87	0.323	20	
Selenium	ND	0.281	"	ND		20	
Silver	0.0199	0.0216	"	0.0251	23.1	20	QR-03
Zinc	6.30	0.432	"	6.77	7.21	20	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGE1015 - EPA 3050B

Matrix Spike (BGE1015-MS1)		Source: 2305488-21			Prepared: 05/30/23 Analyzed: 06/01/23					
Arsenic	11.5	0.216	mg/kg dry	43.2	0.614	25.2	75-125			QM-07
Barium	155	0.432	"	43.2	140	35.8	75-125			QM-07
Cadmium	1.21	0.216	"	2.16	0.0623	53.2	75-125			QM-07
Copper	13.1	0.432	"	43.2	1.77	26.2	75-125			QM-07
Lead	13.1	0.216	"	21.6	3.17	46.0	75-125			QM-07
Nickel	13.6	0.432	"	43.2	1.87	27.0	75-125			QM-07
Selenium	3.22	0.281	"	4.32	ND	74.6	75-125			QM-07
Silver	1.20	0.0216	"	2.16	0.0251	54.5	75-125			QM-07
Zinc	18.4	0.432	"	43.2	6.77	27.0	75-125			QM-07

Matrix Spike Dup (BGE1015-MSD1)		Source: 2305488-21			Prepared: 05/30/23 Analyzed: 06/01/23					
Arsenic	12.5	0.216	mg/kg dry	43.2	0.614	27.5	75-125	8.23	25	QM-07
Barium	155	0.432	"	43.2	140	36.6	75-125	0.241	25	QM-07
Cadmium	1.51	0.216	"	2.16	0.0623	67.1	75-125	22.0	25	QM-07
Copper	14.2	0.432	"	43.2	1.77	28.7	75-125	7.78	25	QM-07
Lead	16.1	0.216	"	21.6	3.17	59.8	75-125	20.5	25	QM-07
Nickel	14.5	0.432	"	43.2	1.87	29.1	75-125	6.42	25	QM-07
Selenium	3.51	0.281	"	4.32	ND	81.2	75-125	8.45	25	
Silver	1.48	0.0216	"	2.16	0.0251	67.2	75-125	20.6	25	QM-07
Zinc	19.0	0.432	"	43.2	6.77	28.3	75-125	3.04	25	QM-07

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PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0800 - 3060A Mod

Blank (BGE0800-BLK1)

Prepared & Analyzed: 05/23/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGE0800-BS1)

Prepared & Analyzed: 05/23/23

Chromium, Hexavalent 24.1 0.30 mg/kg wet 25.0 96.4 80-120

Duplicate (BGE0800-DUP1)

Source: 2305506-01

Prepared & Analyzed: 05/23/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGE0800-MS1)

Source: 2305506-01

Prepared & Analyzed: 05/23/23

Chromium, Hexavalent 28.7 0.30 mg/kg dry 30.2 ND 94.8 75-125

Matrix Spike Dup (BGE0800-MSD1)

Source: 2305506-01

Prepared & Analyzed: 05/23/23

Chromium, Hexavalent 28.7 0.30 mg/kg dry 30.2 ND 95.0 75-125 0.211 20



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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0981 - General Preparation

Blank (BGE0981-BLK1)

Prepared: 05/26/23 Analyzed: 05/31/23

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

LCS (BGE0981-BS1)

Prepared: 05/26/23 Analyzed: 05/31/23

Calcium	4.82	0.0500	mg/L wet	5.00	96.4	70-130
Magnesium	5.93	0.0500	"	5.00	119	70-130
Sodium	6.02	0.0500	"	5.00	120	70-130



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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0896 - General Preparation

Duplicate (BGE0896-DUP1)		Source: 2305506-01			Prepared & Analyzed: 05/25/23					
% Solids	87.5		%		82.7		5.58		20	



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Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0996 - General Preparation

Blank (BGE0996-BLK1)

Prepared: 05/27/23 Analyzed: 05/30/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGE0996-BS1)

Prepared: 05/27/23 Analyzed: 05/30/23

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BGE0996-DUP1)

Source: 2305506-01

Prepared: 05/27/23 Analyzed: 05/30/23

Specific Conductance (EC) 0.571 0.0100 mmhos/cm 0.593 3.76 20



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PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BGE0995 - General Preparation

LCS (BGE0995-BS1)

Prepared: 05/27/23 Analyzed: 05/30/23

pH	9.02	pH Units	9.18	98.3	95-105
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Duplicate (BGE0995-DUP1)

Source: 2305506-01

Prepared: 05/27/23 Analyzed: 05/30/23

pH	7.36	pH Units	7.30	0.819	20
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ball Ranch AC 15-04

Project Number: [none]
Project Manager: Paul Henehan

Reported:
06/05/23 12:03

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
S-04	A sample matrix effect prevented complete surrogate recovery.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
I-01	Due to matrix interference, the sample cannot be accurately quantified. The reported result is qualitative.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference